

D1
CMD 1 the sequence after "PCR with forward ... complementary to" is SEQ ID NO:9 and in Fig. 1B, the sequence after "Processed IL-6 cDNA in E.coli expression vector" is SEQ ID NO:10.--

In the claims:

Please delete claim 1 and substitute therefore new claim 38 as follows:

D2 ~~Sur E2~~ 38 (New). A chimeric glycosylated soluble interleukin-6 receptor (sIL-6R)-interleukin-6 (IL-6) polypeptide (sIL-6R/IL-6), comprising:

(a) an amino acid sequence which is a fusion product of the naturally occurring form of sIL-6R, including the Ig-like domain and the receptor pre-membrane region, and the naturally occurring form of IL-6; or

(b) an analog of (a) which differs from the sequence of (a) by no more than 30 changes in the amino acid sequence of (a), each such change being a substitution, deletion, addition or insertion of a single amino acid, which is capable of triggering the dimerization of gp130 in human cells.

Add E3 Please amend claims 2-7 as follows:

D3 2 (Amended). A chimeric sIL-6R/IL-6 according to claim 38, wherein, in said sequence of (a), said sIL-6R is fused to IL-6 via a peptide linker molecule.

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Cont'd

~~3 (Amended). A chimeric sIL-6R/IL-6 according to claim 2, wherein said linker is a very short, non-immunogenic linker of about 3 amino acid residues.~~

4 (Amended). A chimeric sIL-6R/IL-6 according to claim 3, wherein said linker is a tripeptide of the sequence Glu-Phe-Met.

5 (Twice-amended). A chimeric sIL-6R/IL-6 according to claim 2, wherein said linker is a peptide of 13 amino acid residues of sequence Glu-Phe-Gly-Ala-Gly-Leu-Val-Leu-Gly-Gly-Gln-Phe-Met (SEQ ID NO:1).

6 (Amended). A chimeric sIL-6R/IL-6 according to claim 38, being sIL-6R δ Val/IL-6 having a tripeptide linker of sequence Glu-Phe-Met between the C- terminus of sIL-6R and the N- terminus of IL-6, said chimeric protein having the sequence of SEQ ID NO:7.

7 (Twice-amended). A chimeric sIL-6R/IL-6 according to claim 38, being the sIL-6R δ Val/L/IL-6 of SEQ ID NO:7 in which a 13 amino acid peptide linker of SEQ ID NO:1 is substituted for the Glu-Phe-Met of residues 357-359 of SEQ ID NO:7.

Please delete claim 8 without prejudice.

Please amend claims 9-11 as follows:

D4
9 (Amended). A chimeric sIL-6R/IL-6 according to claim 38, wherein said sIL-6R/IL-6 is produced in mammalian cells.

10 (Amended). A chimeric sIL-6R/IL-6 protein according to claim 9, wherein said sIL-6R/IL-6 is produced in human cells.

11 (Amended). A chimeric sIL-6R/IL-6 according to claim 9, wherein said sIL-6R/IL-6 is produced in CHO cells.

Please delete claims 12-15 without prejudice.

Please amend claims 16, 17, 20, 22, 23, 24, and 25 as follows:

D5
16 (Amended). A DNA sequence encoding a chimeric sIL-6R/IL-6 according to claim 38.

17 (Amended). A DNA vector comprising a DNA sequence encoding a chimeric sIL-6R/IL-6 according to claim 38, said vector being suitable for expression of said chimeric sIL-6R/IL-6 in mammalian cells.

D6
20 (Amended). A DNA vector according to claim 17, wherein when said vector is expressed in mammalian or human cells, the expressed chimeric sIL-6R/IL-6 has a sequence that permits full processing of the chimeric sIL-6R/IL-6 by the mammalian or human cells and secretion of the fully processed chimeric sIL-6R/IL-6 from the cells into the culture medium in which said cells are grown.

22 (Amended). A DNA vector according to claim 17,

D7
wherein said vector is the plasmid pcDNA sIL-6R/L/IL-6 comprising a pcDNA3 vector containing the DNA sequence encoding the chimeric sIL-6R/IL-6 under the control of a cytomegalovirus (CMV) promoter, and wherein in said DNA sequence encoding said chimeric sIL-6R/IL-6 there is inserted a linker sequence encoding a peptide linker at the EcoRI site placed between the sequences encoding the sIL-6R part and the sequence encoding the IL-6 part of the protein.

23 (Amended). Transformed mammalian cells containing a DNA vector according to claim 17 which are capable of expressing the sIL-6R/IL-6 sequence carried by said vector and of fully processing the expressed sIL-6R/IL-6 and secreting it into the culture medium in which said cells are grown.

24 (Amended). Transformed cells according to claim 23 wherein said cells are human embryonal kidney cells 293 (HEK293) transfected by the pcDNA sIL-6R/IL-6 vector, said cells being capable of expressing the sIL-6R/IL-6, fully processing said sIL-6R/IL-6 and secreting said sIL-6R/IL-6 into the culture medium in which said cells are grown in the form of an about 85 kDa glycoprotein.

25 (Amended). A method for producing a chimeric sIL-6R/IL-6, comprising growing transformed cells according to